Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the parent application:

Listing of Claims:

1. (Now Cancelled)

2. (Now Cancelled)

3. (Now Cancelled)

4. (Now Cancelled)

5. (Now Cancelled)

6. (Now Cancelled)

7. (Now Cancelled)

8. (Now Cancelled)

9. (Now Cancelled)

10. (Now Cancelled)

11. (Now Cancelled)

12. (Now Cancelled)

13. (Now Cancelled)

14. (Now Cancelled)

15. (Now Cancelled)

16. (Amended) A process for removal of a photoresist mask used to etch openings in a layer of carbon-doped low k carbon-doped silicon oxide dielectric material, and for removing etch residues remaining from either said etching of said openings or said removal of said photoresist ~~of the photoresist~~ mask, while inhibiting damage to said low k dielectric material, which comprises:

a) providing an integrated circuit structure comprising a layer of low k carbon-doped silicon oxide dielectric material having openings etched therein and a photoresist mask formed over said low k dielectric layer;

b) exposing the integrated circuit structure to a plasma formed from one or more reducing agents to remove at least a portion of said resist mask, and to remove at least a portion of:

i) said residues remaining from formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material; or

ii) said residues remaining from removal of said resist mask; or

iii) residues remaining from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask;

c) then exposing said integrated circuit structure to an anisotropic etch comprising a directional beam of charged particles further characterized by the substantial absence of uncharged radicals, and formed from a plasma formed from one or more oxidizing agents comprising a combination of oxygen and at least one further gas, to remove any remaining residues from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask.

17. (Amended) The process of claim 21 wherein ~~claim 16 wherein~~ said one or more reducing agents includes a source of hydrogen and a source of nitrogen.

18. (Amended) The process of claim 21 wherein ~~claim 16 wherein~~ said one or more oxidizing agents used to form said plasma comprises a combination of oxygen and at least one further gas selected from the group consisting of nitrogen and argon.

19. (Now Cancelled)

20. (Now Cancelled)

21. (New) A process for removal of a photoresist mask used to etch openings in a layer of carbon-doped low k carbon-doped silicon oxide dielectric material, and for removing etch residues remaining from either said etching of said openings or said removal of the photoresist mask, while inhibiting damage to said low k dielectric material, which comprises:

a) providing an integrated circuit structure comprising a layer of low k carbon-doped silicon oxide dielectric material having openings etched therein and a photoresist mask formed over said low k dielectric layer;

b) exposing the integrated circuit structure to a plasma formed from one or more reducing agents to remove at least a portion of said resist mask, and to remove at least a portion of:

i) said residues remaining from formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material; or

ii) said residues remaining from removal of said resist mask; or

iii) residues remaining from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask; and

c) then exposing said integrated circuit structure to an anisotropic etch comprising a plasma formed from one or more oxidizing agents to remove any remaining residues from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask, said step of exposing said openings and any remaining portions of said resist mask to a plasma formed from one or more oxidizing agents further comprises exposing said remainder of said etch residues in said openings and any remaining portions of said photoresist mask to a directional beam of charged particles from a plasma of said one or more oxidizing agents, and further characterized by the substantial absence of uncharged radicals.

22. (New) A process for removal of a photoresist mask used to etch openings in a layer of carbon-doped low k carbon-doped silicon oxide dielectric material, and for removing etch residues remaining from either said etching of said openings or said removal of the photoresist mask, while inhibiting damage to said low k dielectric material, which comprises:

a) providing an integrated circuit structure comprising a layer of low k carbon-doped silicon oxide dielectric material having openings etched therein and a photoresist mask formed over said low k dielectric layer;

b) exposing the integrated circuit structure to a first plasma formed from one or more reducing agents selected from the group consisting of ammonia, hydrogen, a mixture of ammonia and hydrogen, a mixture of ammonia and nitrogen, a mixture of hydrogen and nitrogen, and a mixture of ammonia, hydrogen, and nitrogen to remove at least a portion of said resist mask, and to remove at least a portion of:

i) said residues remaining from formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material; or

ii) said residues remaining from removal of said resist mask; or

iii) residues remaining from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask; and

c) then exposing said integrated circuit structure to an anisotropic etch comprising a directional beam of charged particles characterized by the substantial absence of radicals and comprising a second plasma formed from one or more oxidizing agents to remove any remaining residues from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask.21. (New) A process for removal of a photoresist mask used to etch openings in a layer of carbon-doped low k carbon-doped silicon oxide dielectric material, and for removing etch residues remaining from either said etching of said openings or said removal of the

photoresist mask, while inhibiting damage to said low k dielectric material, which comprises:

a) providing an integrated circuit structure comprising a layer of low k carbon-doped silicon oxide dielectric material having openings etched therein and a photoresist mask formed over said low k dielectric layer;

b) exposing the integrated circuit structure to a plasma formed from one or more reducing agents to remove at least a portion of said resist mask, and to remove at least a portion of:

i) said residues remaining from formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material; or

ii) said residues remaining from removal of said resist mask; or

iii) residues remaining from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask; and

c) then exposing said integrated circuit structure to an anisotropic etch comprising a plasma formed from one or more oxidizing agents to remove any remaining residues from both said formation of said openings in said layer of low k carbon-doped silicon oxide dielectric material and said removal of said resist mask, said step of exposing said vias and any remaining portions of said resist mask to a plasma formed from one or more oxidizing agents further comprises exposing said remainder of said etch residues in said vias and any remaining portions of said photoresist mask to a directional beam of charged particles from a plasma of said one or more oxidizing agents, and further characterized by the substantial absence of uncharged radicals.